American Association for Cancer Education (AACE)

Post-Project Grant Report Research, Education, Advocacy, and Direct Service (READS Grants Program)

Project Title: Comparative Study on Enhancing Oral Cancer Awareness among Minorities: Classical Education Sessions vs. AI-Powered Chatbot

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The project has successfully completed participant recruitment and implementation of study infrastructure, including development and deployment of both the traditional educational sessions and the AI-powered chatbot intervention. Study activities are ongoing, with 11 participants currently completing intervention and follow-up assessments.

Preliminary outcomes indicate that the AI chatbot intervention demonstrates slightly improved knowledge gains compared to the traditional pamphlet-based educational approach, although statistical significance may be limited due to the sample size. These early findings suggest the feasibility and promise of AI-driven education in reducing disparities in oral cancer awareness.

Additional outcomes include the successful implementation of an AI-based educational tool in a community-based setting and the establishment of partnerships with local stakeholders to support recruitment and dissemination efforts.

Several important lessons emerged during project implementation:

- **Regulatory challenges for AI-based interventions:** Institutional review and activation processes were significantly longer than anticipated, largely due to limited institutional familiarity with AI chatbot technologies in research settings.
- **Infrastructure dependencies:** Temporary unavailability of the VCU high-performance computing environment delayed chatbot deployment, highlighting the importance of redundancy planning for technical infrastructure.
- **Personnel constraints:** Competing commitments of key personnel (graduate student) affected project timelines, emphasizing the need for dedicated and protected research effort in small grant projects.
- **Feasibility of AI in community settings:** Despite challenges, the chatbot intervention proved feasible and well-received, supporting its potential scalability for broader cancer education initiatives.